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June,
1935

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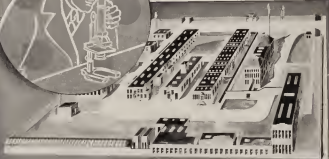
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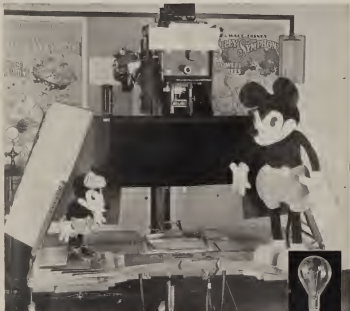


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John Mescall Wins Second Annual A.S.C. Golf Tournament

THE most successful Comeramen's Golf Tournament ever held! Such was the verdict of more than two hundred enthusiastic golfers who participated in the Second Annual Golf Tournament of the American Society of Cinematographers, which was played at the Brentwood Country Club on Sunday, May 12th. Viewed either as a golfing event or as a social occasion, the affair achieved complete success. The score-sheets revealed a notable increase in the ranks of the really expert players, while the presence of the wives and families of many of the players, as well as many non-golfing members, struck a new and pleasing note in the history of cinema golf-meets.

Premiere honors were captured by John J. Mescall, who reported a score of 78 for the eighteen holes. Wesley Anderson, with a 79, was second, with John Fulton and George Foley tied for third place with 81 strokes each. Mescall received the Gold Cup presented by Will Rogers, with a \$65 merchandise order presented by Richard Wallace Anderson received the W. S. Van Dyke Silver Trophy, and a \$30 merchandise order. Fulton, awarded third honors when the Tournament Committee played off the tied cards, received the Gold Table Service presented by Max West, while Foley received a set of Bobby Jones Irons, donated very appropriately by Marion Davies, whose current production he is presently photographing.

Jack Leboritz, playing in place of his brother who was unexpectedly called on location the day before, annexed honors in the Guest Flight, closely followed by Wesley Smith and George H. Gibson, all of whom received special guest awards. Two special prizes—Gold Watches presented by O. Henry Briggs and William German—for the players who came closest to the cup on the two short holes, were awarded to C. King Charney, whose ball landed 1 foot 4½ inches from the 8th hole, and Charles A. Marshall, 8 feet 4 inches from the 16th. Charney, with fine sportsmanship, insisted that as he was playing only as a guest, he would relinquish his prize to the member next in order, and the award accordingly went to Jack Morris, whose ball landed 1 foot 7 inches from the cup.

A special tribute was paid by the A.S.C. to J. L. (Bud) Courcier in recognition of his invaluable services in arranging the tournament. President Arnold, on behalf of the Society, presented Courcier with a gold statuette, and the ovation that followed indicated in no uncertain way that the award met with the unqualified approval of the membership.

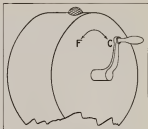
The Tournament was divided into six flights, exclusive of the guest division, grouped according to scores. The First Flight included those whose scores were between 60 and 84, the Second Flight, those from 85 to 94, the Third Flight, 95 to 104, the Fourth Flight, 105 to 114, the Fifth Flight, 115-124, and the Sixth Flight, from 125 up. Unfortunately, the space here available does not permit us to give a complete list of either the players or their awards, none the less, the American Society of Cinematographers extends its sincerest appreciation to the many individuals and firms whose generous cooperation did so much to make the tournament a success.

The First Flight, of course, was led by John Mescall, the winner of the Tournament. The Second Flight was headed by Bert Six (186). The Third Flight was topped by Robert Pinnock (195), the Fourth Flight by Edward O. Blackburn (105), the Fifth Flight by Walter Kelley (116), and the Sixth Flight by Milton Kramer (126). Lester Shorr (118) received the Bobby Prize—and all the honors due a golfer who fearlessly admits his true score.

Improvements for Increased Efficiency

by
George A. Mitchell, Hon. A. S. C.

Research Committee, American Society of Cinematographers



Sketch showing proposed light "port" at top of lamp, and markings with "F" representing fluid and "C" position for handle to concentrate light.

IT HAS long been conceded that the next great changes in photographic technique and equipment would be the introduction of truly practical natural-color cinematography and of really silent cameras. Both of these are more properly problems to be solved in the laboratories of the research-engineers than by the practical workers in the studios; therefore, the technical wing of the industry has, to a certain extent, at least, relaxed to await the outcome of the battles being fought in the drafting-rooms and laboratories, satisfied that existing equipment and methods were not susceptible of improvement.

The accuracy of such a viewpoint is, however, by no means beyond question. While it may be admitted that the next great advances will be in the two fields indicated, it is by no means certain that there are not other improvements of a practical nature which lie well within the grasp of our practical technicians, and which can be of considerable practical and economic advantage to the industry as a whole. We are rather in the position of the proverbial individual who could not see the wood for the trees: we are so intimately accustomed to many little details which slow up production and restrict individual efficiency that we ignore them as a matter of course.

The tripod and the conventional "dolly," for example, were long regarded as fundamental technical units, yet the experience of Cinematographers who have made pictures in studios where these units have been supplanted by such devices as the "Rotamobilator" and "Velocolor" gives factual proof of the added economy and greater flexibility of the idea of combining these apparently fundamental units into a single, all-purpose camera-support.

More recently, in one studio where a synchronizing-mark was inscribed on the camera-negative by a "logging-light" at the start of each "take," a considerable saving in the time ordinarily spent by assistant cameramen in checking the operation of these lights was effected by the simple expedient of wiring an electric buzzer in series with the light, so that a visual indication was given of the light's operation.

To achieve such benefits, an improvement need not be startlingly big, nor need it involve the construction of new

equipment. For example, every Cinematographer has had the experience of telling an electrician to turn on a certain light—and seen the "jester" lose an appreciable bit of time trying to turn on a lamp which was already lit. This is especially so with the reflector-type spotlights generally used for overhead lighting. Tilted down at the angle at which such lamps are usually employed, it is almost impossible for the operator on the catwalk to see whether or not the lamp is lit. The same is true, though to a more limited degree, of certain types used on the stage floor, especially when fitted with diffusers, or on a crowded set.

The remedy is surprisingly simple, and can be applied to existing equipment for negligible cost. All that is necessary is to fit each lamp with a glazed observation-port, either in the barrel of the lamp, or preferably near the edge of the mirror at the rear, where it would be more easily observed by the man on the catwalk when the unit was used for overhead lighting. Such parts could be made by merely punching a small hole in the lamp-housing, and fitting a small window of colored glass, or—even more simply—by fitting one of the red glass tell-tale lenses sold in auto-supply stores for automobile headlights, and costing five cents apiece.

A really surprising saving in ordinarily wasted time should result from even this slight modification, and the resulting monetary saving would more than offset the expense of the change.

Another obvious, but neglected detail improvement would be the general standardization of the screw-threads used to operate the focusing mechanism in both mirror and condenser spotlights. In the mirror-spot, the beam is concentrated when the light-source is at the focal point of the mirror, and spread by moving it closer to the reflector. The reverse, of course, is true in the case of condenser-type lamps, so that if one type is concentrated by turning the crank in a clockwise direction, the other would give exactly the opposite result if the crank were turned the same way. This is bad enough, but not all lamps of the same type have identical operating-controls. One lamp may be "pulled down" by right-handed rotation of the crank, while the one next to it may be "floated out" by the same right-handed turn. This again wastes for loss of time, effort and money in production, for a lamp may be almost perfectly adjusted, requiring but a fraction of a degree more concentration to get the desired effect, when the electrician, having previously adjusted a lamp of different manufacture, will unintentionally give its crank that

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Gregg Toland, A.S.C.

Intensive Preparation Underlies Toland's Achievements

by
Harry Burdick

OF THE many engaging items that may well be recounted touching upon Gregg Toland's contributions to the contemporary cinematographic scene, of immediate timeliness is his employment of the new silent camera. This is the inaudible instrument developed by Mitchell over a period of four years, of a reputed investment upwards of one hundred thousand dollars.

It is a compact, self-contained unit, silent unto itself, using no cumbersome enveloping blimp and permitting the cinematographer to get back an speaking terms, so to speak, with his equipment once again.

For all prevailing picture production purposes Toland reports, the camera is actually without noise. The designers entrusted it to him for its studio debut. Following a series

of reassuring tests, Toland leased his Anna Sten success "We Live Again" with it. Results were completely gratifying. The sound engineers announced a total absence of camera noise reaching their delicately attuned recorders.

Toland has employed his silenced instrument—the Golden Studio promptly purchased it—on successive productions including his latest "Les Misérables," which is winning accolades of enthusiastic analytical praise. In each instance, it has demonstrated its built-in trait of performing its tasks efficiently and keeping quiet about it.

On several occasions, he has extended to visiting cameramen the experience of making tests. These fellow-cinematographers, in turn, have found the camera entirely silent in their service.

For one so vitally an artist at heart and blessed with a vivid value of dramatic presentation, Toland is surprisingly original and ingenious on the mechanics side of his profession. He is carrying on a modicum of trail-blazing in another direction, a simple procedure of merit warranting the prediction of its early adoption as a standard studio routine.

He has conceived a small test-board for identifying to the laboratory the development desired to establish his sought-for effects on negative tests. The board is approximately twelve by five inches in area and is photographed at the start of each scene, much in the fashion of the slides of old. On the board are code insignia, nine in number, indicating Night, Day, Dusk, Dawn, Effect, Semi-Effect, Normal, Force Development, and Under-Development.

The worth to the laboratory of such scene-labeling is obvious. Results testify eloquently of its effectiveness. But Toland carries his laboratory co-operation even further. On each scene, on the set, he has a contact man—a laboratory liaison officer, who absorbs the mood, spirit and key of the scene and relays this data to the processing technicians. As may well be expected from such continuity of purpose, what Toland intends to capture on his celluloid is present in full measure when the negative emerges from his laboratory.

A marked depth of ancestry is manifest in all of Toland's procedure in taking to the screen an adequate cinematographic rendition of the drama that is unfolding. He devotes as much time when conditions permit, in preparation as in the actual shooting.

The exceptional merit of his current "Les Misérables" is evidence of the efficacy of his methods. Fifty-four sets were utilized in this production. As each was constructed, well in advance of schedule, Toland visited it. He called for his lights and—radical departure from general technique—a squad of painters. Right on the catty cloth, by his instructions, the painters' spray guns put in the shadows, accentuated the blacks, definitely determined the greys, brushed in highlights, providing a supplemented foundation for his lights to play upon.

As to lighting, he uses large units and few of them, as preferred to smaller groups in wider number.

He devoted, by average, in excess of three hours on each set in preparation for his actual shooting, many of them extending into dawn. But when the characters began their portraiture before his sets, he was ready. He did one thousand fifteen set-ups in thirty-six days, which averages twenty-eight each day. Ninety percent of the footage exposed found place in the picture when screened. He saved fifteen thousand dollars under budgets on sets alone.

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At left, Carl O. Peterson, radio expert and an accurate cinematographer, and at right John L. Herrmann, A.S.C., veteran Paramount cameraman who filmed Byrd's South Pole expedition.

On Location at the South Pole

by
Wm. Still, A.S.C.

JOHN Herrmann, A.S.C., and Carl Peterson have just returned from location at the Bottom of the World. Ten thousand miles away from Hollywood, 2,500 miles from the nearest outpost of civilization, they spent eighteen months as members of the Second Byrd Antarctic Expedition, battling polar storms and temperatures of 65 degrees and more below zero, to bring back a thrilling successor to the Academy Award-winning "With Byrd at the South Pole."

In many ways, it was the most unique location in the history of film. Not recreating history, but recording history in the making, entrenched at the edge of a vast empire of ice greater than the United States and Mexico combined—the last blank space on the maps of the World. Herrmann and Peterson were in every sense of the word

members of the Expedition, not only were they the official camera-reporters, assigned by Paramount News to "cover" the story, but each performed definite duties as members of the exploring party. Herrmann, veteran of the News-reel service and sometime Chief Electrician and Photographer in the U.S. Navy, was not only Chief Cinematographer, but Projectionist, Electrician and assistant-cook. Peterson, sea-going radio expert and officer of the Norwegian and U.S. Navies, combed the "eyes of the world" aloft on the flying traps, and did double duty as the party's flying radio-officer. Between them, they photographed over 150,000 feet of film, the last of which has just been reeled from the developing machines of the Paramount Studio Laboratory.

"We soon got used to the temperature," says Herrmann. "During the winter months, when it got really cold, it was, of course, too dark to make exteriors, save for an occasional flare-lit scene or two. In the summer months, it usually warmed up to zero—and sometimes the mercury even climbed above the freezing-point. Just the same, the temperature gave us plenty to think about, photographically. Most of our scenes were shot on Super Sensitive film, the manufacturers had advised us to allow a stop to a stop-and-a-half more for every 10 degrees drop below normal American temperatures. In practice, we opened up from two-and-a-half to three stops, and found it about right. Our average exposure, using an Akeley camera with its 230 degree shutter wide open, and on Aero 2 filter, was f-8, on Super Pan film. In other words, the extreme cold slowed the fast film down to approximately the same speed as regular Pan. In addition, we used quite a bit of special Background Panchromatic negative, and several thousand feet of Intipix; the latter, incidentally, we weren't able to use fully, because this climatic slowing, combined with the generally rather poor light-conditions, made it impossible to use the heavy filters necessary. In fact, though we carried a complete assortment of gelatine filters, we hardly used any except the old dependable Aero 2. Incidentally, it is interesting to know that, while the extreme temperatures slowed our film, it did not produce any lasting effect, for when we returned to normal temperatures in New Zealand, we found that the film-speed had also returned to normal."

"Perhaps the strongest thing was the change in our photoelectric exposure-meters. We carried half-a-dozen or more in the party, for in addition to ourselves, the Associated press 'stiff' men and the aero-mapping-commander, there were many 'Leica' enthusiasts in the group. Personally, I use a meter regularly, and swear by it. But not down there in the Antarctic! I don't know whether it was the temperature, the proximity of the magnetic pole, or the peculiarly deceptive value of the light, but at any rate, not one of the meters would give an accurate reading! Every one of them gave an off-scale reading, the only way we could use them was to allow three full stops over the indicated reading. After the first few hundred feet of film, I reluctantly discarded the meter, and guided myself entirely by tests. These, I developed—usually a day or so after shooting—in a little dark-room I made out of ice-blocks, and using ordinary A-B and 'Tobias' developer, or the old Eastman D-7 A-B-C formula. The meters, by the way, also returned to normal as soon as we got back to more normal temperatures."

"The extreme cold played the old scratch with our film in other ways, too, made it brittle, so that loops were

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SOME

FAST "PANS"

"The Things They Do at M.G. Meyer"

● It looks as though M.G.M. and Warner's think they are running a baseball team, instead of grinding groceries. A certain blonde star who recently graced the Suburban pie with her smirching pretence, demanded that she have her favorite film feeder standing behind that infernal machine. Rather than have the lady dissatisfied, the powers that be made a deal. George Folsey is now at Warner's and Ernie Heller is M.G.M.'ing it. It's just a temporary trade, though at least for the present.

"Anything for a Laugh"

● Roy June is back on the "China Seas" set after having flooded his fl... (I think that's the proper remedy). Roy is so engrossed in his work these days that he can't even hear the signals. To prove it... There is a sequence in the "pitcher" that calls for one of the better boys to step a wet sponge with her face. Roy was showing her just where to stand when the director called rehearsal... and he did not notice Roy, who was sloped over marking the emcee's foot positions... as Roy straightened up, the order was given to fire. Roy, of course being a gentleman, protected the lady and made an excellent stop... right between the eyes. New Mack Sennett is trying his best to interest June in a contract.

"Fear Paul????"

● Paul Vogel has gone and done it... regardless of advice and rumors to the contrary, Paul and the former socialite, Patricia Daley, middle-aged it the other weekend. We know, because Len Smith, erstwhile golfer, personality boy, and mass of muscle... told us. Len threw a binge for his banded buddy over at the Bel Air Boy shack... among those getting numb enough to associate with the happy groon were Olive Marsh, Roy June, Bill Daniels, Hal Lipson, Charlie Lang, and Pev Merley. You have our best wishes and "Bon Voyage" on your metropolitan cruise, Paul, and good wishes help after a few years we know.

"To Be or Not To Be"

● And while we're on the subject of mergers, the way Harlike Smith finally took to himself a wife is a classic. Harlike and the now safe and sound Mrs. Harlike had intended to hook the shackles for some time... just when they had set the date, Harlike was sent to China to crank "Good Earth"... as soon as the boat docked back in the States, Harlike doshed ashore and combed his lady love... a few quickly answered questions and it had been done. Harlike now had a wife... but no honey-moon... three days later Harlike was again called before a's Massa Arnold and told to be on his way to Tahiti to "yes" Charlie Clarke on "Mutiny on the Banzai" two months later Harlike returned to his waiting and watchful wife... the happy couple had just said hello.

when Harlike again was called... this time it was back to Tahiti for retakes... but... Frank Lloyd and Charlie Clarke decided that if things kept up, the Smiths would have to win their last in a raffle... if there was to be a first. Frank and Charlie made a pool and sent the now frantic "lutter hall" along with her lord and master. And this department thinks Frank and Charlie deserve all the orchids in the deck.

"Dear Off the Initials Boys"

● A certain button pusher who was taken over by aie Uncle Sammy to supervise and create jobs for the unemployed camera men and "studio" technicians and who, by the way, is now "tips" with all of the better "button leader ones" because of the absolutely swell way in which he has handled the less fortunate bulb squeezers, was very busy the other A.M. in getting his many "yesses" started on the day's loafing... one of the more ambitious ones kept asking for something to do. "Do you want me now, Art?" he would ask every time the super would look his way. Finally the boss became a little weary over the fellow's insistence... in an attempt to squish the pest, the super walked over to him and in a low tone said, "Don't call me Art. Somebody might think you know me. Call me A.J." And if that isn't a classic we might pass on the one that's been floating around about Tony Gaudin.

"Fush 'Im In, Tony"

● Tony and Mrs. Gaudin had wound up the family fiver and were touting down the Blvd., in search of a new spot to take on a few proteins, the other after-mid-night suddenly Tony saw a sign reading "Italian Food... All you can eat... 50c." Tony pulled up to the curb. "Come on Mom, here's where we eat." When the first course of "Wop yam" had been set before the Gaudins, the proprietor came up and offered his greetings. When he had been assured that everything was just fine, he left Tony to his gastronomic enjoyments. About an hour later the proprietor again approached the table... this was after Tony had devorated his eighth plate of spaghetti... "Pleaso mister," the proprietor begged Tony, "if you quite eating now, I no charge you feefly cent."

"Short Shots About Things"

● Herb Fisher and Hal Marzaroni have challenged Eddie (Handicap) Hannan and Bob Kike in a dwt dual to the finish, on the Rancho cut and cuss field. The weapons will be red-ones or as many yards as possible. George Folsey was seen at the L. A. Tennis club the other after while stapping balls with various parts of his anatomy. George was once one of the best onehands on the Coast a few years ago, but now he's nothing next to nothing. Three of the better structure maniacs are Bill Walling, Gene Richey, and Harold McAlain. Bill goes in for model aircraft and manors, Gene prefers racing boats, and Harold sonshies that surprised feeling by building tiny choo-choos.



Elmer Dyer, A.S.C.

"Lighting" Problem In Air Photography

by
James L. Fitz

ELMER DYER assures us that the aerial cinematographer's life is no series of white fleshy clouds and pink horizons, but is usually comprised of a series of events which require an iron nerve and a fathomless knowledge of cinematography. These requirements on the part of Dyer proved their necessity during the photographing of "The Lost Horizons."

In this production, the proper lighting was the most difficult to master, due to the fact that a single shot might cover all of the territory from the top of Mount Whitney which is the highest point in the United States, to the pit of Death Valley, which is the lowest point below sea level. The camera plane covered this distance in twenty minutes, and the contrast in lighting, setting and backgrounds was so terrific that every ounce of Dyer's cinematographic ability was necessary. From the freezing cold altitudes of twenty thousand feet where the cinematographer's in-

gers became frostbitten and his cheekbones froze, the plane would drop to a bare thousand feet above the desert. At this level, the thermometer would register somewhere in the neighborhood of 120 degrees, and the heavy flying tops which were necessary in the high altitudes, Elmer tells us, made him feel as if he were in a Turkish Bath. Aside from the physical discomfort, caused by these sudden drops, Dyer spent anxious moments endeavoring to keep his lenses clear. A sudden change in altitude had a tendency to cause a fog to form on the glass of both the finder and the lens. Although this fog did not obscure the image, it was still dense enough to produce a softening effect.

Another handicap which Dyer encountered, was the glaring light reflecting from the salt beds of the dry lakes. These gleaming masses of white sodium, when viewed from the air, appeared to the camera eye as giant mirrors. A shooting schedule, which began at seven-thirty in the morning, ended at nine-thirty in the morning, began again at three in the afternoon and continued until the light failed, proved successful in combating the handicaps in lighting. Even then, Dyer states, the light was so brilliant that it was necessary to use Infra D film, to obtain the night effects.

The camera itself proved to be another handicap. At low altitudes, a heavy oil had to be used in the moving parts, because of the mighty sand-storms which blow across the desert during this season of the year. At high altitudes, this oil would become so stiff, that the camera would freeze solid. After several experiments with various types of oil, it was discovered that the only way to keep the camera moving when the plane reached an altitude of more than fifteen thousand feet, was to take all of the oil out of the camera and in the parts where oil was absolutely necessary, a very light whale watch oil was used.

Dyer, however, points out that there was one redeeming factor. Both he and his pilot, Frank Clark, had been over practically the same territory twice before. The first time was for Fox, during the filming of "Change of Heart," and the second time for Paramount's "Thirteen Hours By Air." Therefore, with the previous knowledge and experience obtained on these two productions, Dyer managed to photograph all of the air sequences in twenty-five thousand feet of film. His camera plane was a Lockheed Vega, powered by a super whisp motor, and was designed especially for Dyer. It cost Columbia Studios exactly \$1,650 to reconstruct the cabin and build the necessary doors, both in the front and sides of the plane to shoot through.

Dyer claims to be one of the few cinematographers in Hollywood who was forced into his present profession. It all happened back in 1916. Elmer loaned a man \$150 on a movie camera. The man couldn't pay, so Elmer was forced to foreclose on the camera. Dyer then points out that the only way he could see that he could ever get his money back, was to become a cameraman, and he figures that now he is just about even. He received his first chance as an aerial photographer in 1920, at the Universal Studios. Milt Moore, the cameraman, who was chosen to film "The Great Air Robbery," became extremely ill, every time the plane left the ground. Dyer volunteered for the position and was immediately taken. This was the first picture ever made in the air and started Elmer on a career of aerial successes.

He has spent more than four thousand hours in the air, and yet he has never crashed or been injured in an airplane. Still on nearly every assignment he has received to film on land he has ended up in the hospital. After the injuries Dyer received on the shooting of "Six Day Bike

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PHOTOGRAPHY

of the MONTH

GOLDDIGGERS OF 1935" (Womens)

George Barnes, A.S.C.: Directing Cinematographer
Hollywood Reporter (April 18, 1935): "Top-notch describes the photography of George Barnes. There are some startling trick effects."

Daily Variety (April 18, 1935): "Photography of George Barnes is in line with this lenser's usual excellent work."

"THE COWBOY MILLIONAIRE" (Fox)

Frank B. Good, A.S.C.: Directing Cinematographer
Hollywood Reporter (April 18, 1935): "Edward Cline's direction is first rate, as is Frank Good's photography and the mounting generally."

Daily Variety (April 18, 1935): "Excellent photography by Frank B. Good adds greatly to the quality."

"LADIES LOVE DANGER" (Fox)

Daniel B. Clark, A.S.C.: Directing Cinematographer
Hollywood Reporter (April 19, 1935): "Daniel Clark's photography was top flight in a picture that called for plenty of tricky night interiors and disorientating lighting."

Daily Variety (April 19, 1935): "Production has been handsomely mounted with Daniel Clark's camera."

"BREWSTER'S MILLIONS" (United Artists)

Bernoy McGill, A.S.C.: Directing Cinematographer
Hollywood Reporter (April 19, 1935): "Cutting and photography are first-rate."

"THE WHITE COCKATOO" (Womens)

Tony Gaudia, A.S.C.: Directing Cinematographer
Hollywood Reporter (April 22, 1935): "Tony Gaudia's photography is helpful in sustaining the picture's theme."

"DINKY" (Womens)

Arthur Edson, A.S.C.: Directing Cinematographer
Hollywood Reporter (April 22, 1935): "Photography by Arthur Edson very good."

"GOIN' TO TOWN" (Paramount)

Karl Struss, A.S.C.: Directing Cinematographer
Hollywood Reporter (April 23, 1935): "Karl Struss proves again he's an ace cameraman."

Daily Variety (April 23, 1935): "Photography by Karl Struss is excellent."

"VILLAGE TALE" (Rialto)

Nick Musuraca, A.S.C.: Directing Cinematographer
Hollywood Reporter (April 23, 1935): "Musuraca's photography contributed masterfully to the depressing atmosphere of the story."

Daily Variety (April 23, 1935): "Nick Musuraca has done a good camera job."

"THE INFORMER" (Rialto)

Joseph August, A.S.C.: Directing Cinematographer
Daily Variety (April 24, 1935): "Photography of Joseph

August is splendid. Lighting is artistic and eye-pleasing."

Hollywood Reporter (April 23, 1935): "Joseph August's camerawork and the splendid lighting are responsible for a large share of the picture's power. Composition after composition should be framed and hung."

"THE CALL OF THE WILD" (Twentieth Century)

Charles Rosher, A.S.C.: Directing Cinematographer
Hollywood Reporter (April 27, 1935): "Charles Rosher reaches a new high in his photographic conquest of the woods, the snow-clad wilderness and the eternally white peaks of the northland. There is dramatic as well as artistic value in every one of his master scenes."

Daily Variety (April 27, 1935): "Charles Rosher's photography is perfect."

"WEREWOLF OF LONDON" (Universal)

Charles Stumar, A.S.C.: Directing Cinematographer
Hollywood Reporter (April 27, 1935): "Beautifully photographed by Charles Stumar."

"OIL FOR THE LAMPS OF CHINA" (Womens)

Tony Gaudia, A.S.C.: Directing Cinematographer
Hollywood Reporter (April 27, 1935): "Tony Gaudia's photography is fine throughout the entire picture and the atmospheric shots look genuinely good."

Daily Variety (April 27, 1935): "Tony Gaudia's photography is excellent in its adaptation to the subject and in stressing the atmospheric elements."

"THE FLAME WITHIN" (M-G-M)

James Wong Howe, A.S.C.: Directing Cinematographer
Hollywood Reporter (May 2, 1935): "Jimmy Howe's scenes up to his usual standard."

Daily Variety (May 2, 1935): "James Wong Howe has photographed well."

"AGE OF INDISCRETION" (M-G-M)

Ernest Miller, A.S.C.: Directing Cinematographer
Hollywood Reporter (May 2, 1935): "Miller's photography is okay."

Daily Variety (May 2, 1935): "Photography and production are very good."

"BLACK SHEEP" (Fox)

Arthur Miller, A.S.C.: Directing Cinematographer
Daily Variety (May 3, 1935): "Arthur Miller's photography is swell."

"SIO RAISE" (Fox)

Harry Jackson, A.S.C.: Directing Cinematographer
The Film Daily (May 4, 1935): "Photography, 'Fine'."

"SWELL HEAD" (Fox)

Joe Valentine, A.S.C.: Directing Cinematographer
The Film Daily (May 4, 1935): "Photography, 'Good'."

Continued on Page 274

EXTRA SPEED

SUPER X "Pan" is much faster than regular Super Sensitive. Under normal conditions its extra speed gives definitely better shadow detail...general improvement in quality. And under adverse light it often means certain success instead of probable failure. Combining this great speed with startling fineness of grain, Eastman Super X marks a substantial advance in motion picture photography. Eastman Kodak Company, Rochester, N.Y. (J. E. Brulattour, Inc., Distributors, New York, Chicago, Hollywood.)

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Adjustment for Dolly Head

● Gregg Toland, A.S.C., recently devised a novel mechanism which greatly increases the flexibility of his camera equipment. Fitted to a standard Fox-Feinless "Velocitor," the device consists of a flat bedplate, similar in principle to a lathe-bed, upon which travels a flat carriage. Upon this carriage is mounted a "top-hat," which in turn carries a conventional friction-type pan-and-tilt head. The bedplate may be rotated, though its normal position is at right angles to the velocitor's orientation. By means of a toothed rack on this plate, the carriage may be traversed laterally through a distance of over a foot and a half on either side of the center-line. This motion is secured by

operating a crank located conveniently at the rear of the carriage, a locking mechanism is also provided.

In practice, according to Toland, the device greatly facilitates the making of difficult shots. Travelling-shots, for example, are more easily aligned, and failure of the actors to occupy their exact positions in such shots can often be remedied by a slight lateral movement of the camera. Obviously, the device simplifies set-ups in which the camera must come close to the wall of a set, or extend over a desk or table. Toland has used the device on several of his recent productions, including "Les Miserables" and "Public Hero No. 1."

features many detail improvements, and the lowest weight so far achieved by camera-housings of this type. Through the use of improved aluminum-alloy castings and painstaking design, the weight has been reduced to slightly over a hundred pounds—a figure which is expected to be further reduced by detail improvements. The device is somewhat more compact than its predecessors.

The familiar features of MGM blimps, including sturdiness, accessibility, focusing and parallax-correcting finder, are retained. The focusing scale is pre-calibrated for 25, 35, 45, 50, 75mm and 4¼-inch lenses, with unusually large and easily-read calibrations, and the mechanism is so designed that any four lenses may be carried on the turret of the camera, and interchanged almost as readily as in the pre-talkie era, the finder is synchronized by means of quickly changed cams.

The doors are fitted with less cumbersome locks and positive, quick-release catches which hold them firmly when open. The front door of the blimp is hinged to swing horizontally rather than vertically, and the window is masked by accurately-cut bakelite mattes, resembling the familiar finder-mattes, but opaque. An ample bakelite sunshade can be fitted externally, while a green vapor is double-protected to swing down over the finder, to shade the Operator's eyes when necessary. The fogging-light and an indicating buzzer are wired in series, so that an audible indication is given of the former's operation.

Lightweight Blimp Has Many Improvements

● A new lightweight camera blimp has recently been placed in service at the Metro-Goldwyn-Mayer Studios. Like previous MGM blimps, it was designed

by John Arnold, A.S.C., Head of the Studio's Camera Department. In appearance the new unit is similar to the earlier designs in use at the studio, but



Intensive Preparation Underlies Toland's Achievements

Continued from Page 242

When previewed at the Quirese Theatre, another innovation, "Les Maerobles" was at once nominated as an outstanding contender for the year's cinematographic laurels. It is done in very low key throughout—indeed one of the lowest in key that has ever been made. Hugo's immortal story of Valjean incessantly haunted by the cruel Javert is not a tale of gaiety. Ten thousand feet done in so low a key might well be expected to be depressing to an audience. So, at skillfully timed intervals, Toland relieves the mood by interspersing bright and brilliant scenes, thus achieving a deft dramatic balance. The period, France 1800, is realistically conveyed by masterful, and well prepared cinematographic suggestion.

His treatment of closeups is a revelation in artistic conception and courage. There are many of them in "Les Maerobles," some flashing in brief cuts of two and three feet. They appear to be absolute nader in key, only vivid bars of brilliance slashing across faces at surprising angles alleviating utter depth of mood.

Toland is the truer type of cinematographer who harbors the belief that "camera man" is a woefully weak mes-

senger for the procheinor of the myriad arts of cinematography. It smacks too floridly of the machinery involved. He likes to dam up all thoughts of mechanics and physics and chemistry and such tangible things which comprise the media of his expression.

He is a story-teller, a maker of drama. His sphere is with the director and the art director. With them, he plots his drama's development. His preliminary preparation is exhaustive, thorough. His first scene creates and establishes mood. His every successive scene



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ON LOCATION AT THE SOUTH POLE

Continued from Page 241

continually breaking. Of course, we kept the film in an ice-house, and when we made interiors, we slowly warmed the film for several days, gradually bringing it up to the temperature inside the houses, before we shot. We carried a small set of portable Photoflood lighting-units, and a Photoflood strip, which we supplied from two portable 1-Kw gasoline-driven generators. As we had more, and better, lighting equipment, I think our interiors will be a bit better than those brought back by the boys on the first expedition, who had only a couple of twin-arc bulbs.

Right here, I want to pay tribute to Henry Snegin, Ray Wilkinson and the Paramount Studio Laboratory. Our first few thousand feet went through a news-reel lab, three-minute "dynamite" soap, and so on, the rest has gone through here at the studio. The difference is so great that I can hardly believe I photographed some of the stuff. If the picture is a good job photographically, the lab crew will deserve a lion's share of the credit.

Our camera-equipment was rather limited, at first, just an Akaley and several hand-comras, later, the studio sent down a Bell & Howell for the background work. In the warmer weather—we called everything above about 15 degrees below zero warm—we lubricated the cameras with special aircraft-instrument oil. When it got really cold, we had to drain the cameras, dry them out thoroughly, and run them dry, otherwise, the oil would have frozen and jammed them up tight. We worked in silk gloves, of course, to keep our hands from sticking to the metal parts, and kept the cameras in an ice-house. When we wanted to make interiors, we took them indoors and baked them—literally—in an oven until every bit of moisture was chafed out.

Contrary to usual exploring practice, we did not bundle ourselves up in furs, instead, we wore specially made cotton windbreakers. The closely woven cloth

kept out the cold winds just as well as fur, and was much less bulky. The only time we wore furs was when we were flying, or doing similar tasks where we could not move around.

Peterson, a member of the First Expedition, joined Paramount News some time before the second group started, and mastered aerial cinematography so that he could do double duty as radio-operator and cameraman on the flights. "To be useful on such an expedition as this," he says, "a man must not only be a qualified specialist in some line, but, if possible, proficient in more than one job. Take my own case, for example, if I had not been a qualified radio-operator, nothing could have gotten me a place in one of the planes, for every ounce lifted from the ice must do useful work. On the first expedition, Co-pilot Harold June had to handle the photography—as well as flying and radio-be-

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cause both of the cameramen were dangerously heavy.

"All told, I had more than 70 hours in the air down there in the 'Horse of the Blizzard.' The weather was much less favorable than during the first expedition, but the ships spent more time in the air. Much of the time, everything was overcast, and visibility was about zero in every direction—up, down, and to all sides—was just a milky whiteness. This made flying difficult and dangerous, and our aerial pictures were very flat. We had several bad moments, once, out over the Rockefeller Mountains, the port motor of the big 'Condor' went dead—out of gas. Unless June had been able to pump fuel from another tank and start the motor quickly, before it froze, we would have crashed, five hundred miles from 'Little America.' Those moments while the plane sputtered down, half its power gone, and June feverishly pumped gasoline, were without doubt the longest and worst of my life. But I think the most dangerous flight I made was the second one. After June, the Admiral, and I went off in the big 'Condor,' taking off from the open sea to cruise forward over the pack-ice in search of an open lead through which the S.S. 'Jacob Ruppert' could reach Little America. A forced landing could only mean a crash, with no hope of rescue or escape across the broken ice-pack. To make things still more unpleasant, the murky weather forced us to fly low, 'hedge-hopping' over icebergs. I have never known the Admiral to take such chances, but it was necessary, for we had to get the 'Jacob Ruppert' to shore and unloaded before winter set in.

"On the overland trip which went 500 miles inland to build the advance base in which the Admiral spent the winter, we had the longest land party that has ever made a polar journey, ten tractors, carrying tons of equipment, and a score of men. We had to lay down caches of food and fuel as we went, and for every hundred miles we advanced, we travelled 1,600 miles back and forth with supplies!"

Improvements for Increased Efficiency

Continued from Page 239

fraction of a turn is the wrong direction, necessitating complete readjustment of the light.

Obviously, the ideal solution for this would be complete rebuilding of the operating parts of all lamps to establish a definite, industry-wide standard. For obvious practical considerations, however, such a step is not feasible, but a simple, inexpensive remedy nevertheless exists. This is simply to mark each lamp, plainly indicating by means of an arrow and the letters F and C which way

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the crank should be turned to flood and to concentrate the beam. Such markings could be made with painted or stencilled letters at practically no cost, and would undoubtedly achieve a beneficial saving of time and money.

Growing out of this is an idea which should, I believe, be given serious consideration in the design of any new

lighting units. Granting the desirability of working toward an eventual standardization of threads and operating mechanism, and the incorporation, even so, of a visible indicator, would it not be well to go a step beyond this and provide a color-coded indicator, by which a lamp could be set accurately at "1/2 flood," "3/4 concentrated," and so on? Such an indicator would not involve any loose changes in design, nor complicate the problems of manufacture, yet it would make the lamp a definitely more practical unit for commercial use.

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Lighting Problems In Air Photography

Continued from Page 243

Rider." For Warner Brothers, he made a solemn promise that he would never photograph anything again, except in the air.

On the other hand, Dyer has secured many narrow escapes, during the shooting of his numerous air pictures. The first time was on the production "Paul Jones Jr." for Fox. Dick Grace, who was the camera pilot on this production, cut the motor and asked Dyer if his belt was fastened. Elmer, thinking the pilot was referring to the belt which was holding his trousers, assured him that it was well fastened. Grace, then, without warning, threw the plane into an almost vertical power dive, and the only thing that kept Dyer from plunging into oblivion was the fact that he had a secure hold on his camera, which was belted firmly to the side of the ship. Another hair-raising incident took place during the filming of "Hell's Angels." It was necessary for the camera plane to fly very close to the ground for close-up shots of the crashes. Dick Grace was again Dyer's pilot. As the camera plane swept low over a diving ship, a piece of wreckage from the crashed plane flew into the air and struck Grace on the head, knocking him unconscious. Dyer claims that he wasn't alarmed during the time, but he was merely worrying about how his wife was going to spend his insurance. However, today finds Elmer hale and hearty and seeking further aerial triumphs.

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AMATEUR MOVIES

this issue

Wipe Offs . . . Camera Tricks
Amateur Day at San Diego Fair
Building a 16mm Printer
Shooting Color
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. . . and other features

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AMATEUR MOVIE SECTION

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Next Month . . .

• We have what we consider an exceptional treat for the reader of our amateur section, next month, a contribution from Charles Herbert, A.S.C. Herbert is the man who shot so many of the *Magic Gaspers* which you admired. He tells you in his inimitable and straghtforward style how to shoot a simple scene, the kind you will run into on your vacation this summer. It's a documentary that you'll be proud of as long as you live. Many subscribers of this paper consider one of Herbert's articles worth the entire subscription price. He speaks from experience, still he holds the amateur's viewpoint. You'll enjoy Herbert next month. Of course there are others.

PROFESSIONAL criticism of the Amateur picture is a part of the service offered by the AMERICAN CINEMATOGRAPHER. Many are not aware of this. Hundreds of pictures have been reviewed this past year by members of the American Society of Cinematographers for the Amateur.

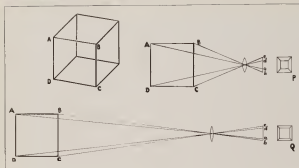


Fig. 1

More Talk About Perspective

by

Harry Walden

IN W. J. Grace's concluding talk about lenses he remarked that any reader who had seen the perspective question discussed in an article would be one up on him. Well, I think I may claim to be two up, for although it is hardly a subject of the "popular" class, I have not only read such articles but written them. Moreover I have offered an explanation for one curious phenomenon which I believe is original. If any reader of the "American Cinematographer" has seen it before I shall be glad if he will let me know.

In addition to being a geometrical question, the appearance of perspective in a picture is also a psychological one.

The drawing which appeared in the February number dealt with one geometrical aspect. But let us consider it in a slightly different way. Again take for illustration the outline of a cube, of which ABCD, Fig. 1, is a side elevation. We photograph this with a lens of, say, one inch focus, with the result that the horizontal lines of the cube will appear at C, d, a, b (upper drawing) and the photograph will appear at P. We repeat the experiment with a lens three times the focal length of the former (say a 3"). In order to get a photograph of the same size as before it will be necessary to get three times as far away from the cube and the result will be as at Q (lower drawing). It will be seen that the lines in the photograph representing the farther edges of the cube are now much closer to the lines representing the near edges. This illustrates in graphic form the reason why the distances apart of objects seem to be less when we use a telephoto lens. Two men standing, one behind the other will appear to be close together if a long focus lens (i.e. narrow angle) is used, but will appear to be much farther apart if a normal lens is used. The landscape beyond a foreground of trees will

appear to be farther away with a wide angle than with a narrow angle lens.

But this is not the whole story. Look again at the pictures of the cube (P and Q). If these had been placed before you without explanation, what would you have made of them? One might perhaps imagine both to be pictures of cubes. But P might be a truncated pyramid, while Q might be a flat plate with bevelled edges. Or again they might both be nothing more than a pattern on the paper.

The fact is that when solid objects are projected onto a flat surface the eye and mind cannot gain any idea of solidity or size without the exercise of imagination and the reference to the sizes of known things. If the photographer takes a picture of a tall cliff he places a man beside the cliff for the purpose of comparison. Without this the photograph might just be of another of Hollywood's miniatures.

Consider again the instance of the two men, one standing behind the other. In Fig. 1 imagine BC is the nearer man and AD the farther. Then with a long focus lens we shall get a picture something such as P (Fig. 2) in which the photograph will show the image of the farther man about $\frac{1}{3}$ the size of the nearer. (Compare ad and bc in Fig. 1, lower.) With a shorter focus lens we shall get the image of one man about half the size of the other (as at G, Fig. 2. Compare ad and bc, Fig. 1, upper.) Suppose now that with the camera in the same position as G was taken, we use a lens of longer focal length. While the relative sizes of the images of the two men will be in the same ratio as before the sizes of both will be much larger (H, Fig. 2). We could have obtained the same result by enlarging the

picture G. Now I think you will agree that the two men in G appear to be standing farther apart from one another than the two men at H. This is a peculiarity that you can test for yourselves elsewhere, the more distant objects in the enlargement appearing to have come nearer. The small snap is notorious for the way in which it exaggerates the distance. You can also witness the same effect with a given photograph by bringing it closer and closer to one eye. The effect is more noticeable when the picture gets very close to the eye, and in this position a short focus viewing lens will be required to keep the picture in focus in the eye. The nearer you bring it the less appears to be the separation of the planes of the picture.

Why is this? When you see the picture on paper you cannot tell the size of the objects without some object of known size for reference. Here you have a picture of a man (H). You know the size of a man from experience, but you do not know how far away he is in the picture. So the eye jumps the gap and tells you that this man, being a certain size on the retina of the eye, must therefore be so many feet away. The eye regards the nearer man as ten feet away, and, as the farther man appears half the size, he must be twenty feet away, i.e. they were ten feet apart. Now pick up a reduced-size copy of the same picture (G) and regard it from the same distance as the other. The image of the nearer man is, to the eye, of the same size as the distant man in the enlarged picture (H), i.e. 20 feet to the eye. But since, in the smaller picture, the distant man is again half size to the retina, therefore, says the eye, he must be forty feet away. So that this time the man appears to be twenty feet apart. The distance between the two men thus appears to have increased, although both photographs are geometrically correct. The distances given are, of course, for the purpose of explanation and are quite arbitrary.

The explanation given is a variant of the psychological idea of "constant size." When the eye receives images of different size, it does not regard the distant man as being himself of smaller size. The eye assumes that they are of similar size and that one is farther away than the other, the measure of the distance being governed by experience.

In order to see a picture in correct perspective it is therefore necessary that the images on the retina of the eye are all of the same sizes as they would have been if the eye had been placed beside the lens of the camera. This can be done if the picture is viewed at a distance equal to the focal length of the camera lens. If the picture is enlarged, as on the cine screen, the viewing distance becomes the focal length multiplied by the magnification factor of the enlargement.

While this rule is broadly correct it is not the whole story, as will be found from personal observation. The eye and the camera lens do not work in the same ways. I will just mention two points. First, that the size of the image on the retina changes as the focus of the eye changes. Secondly, that, while the camera lens remains still, with an all-embracing vision, the eye sees only one point at a time clearly. In looking from one point to another the eye has to swivel, and the extent of the eye's movement must have some effect on the judgment of distance. Take rather an extreme example in Fig. 3, in which AB is twice

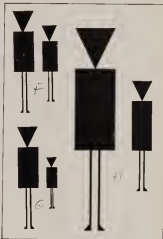


Fig. 2
At the left is illustration F. At the bottom is illustration G and at right is illustration H.

the distance of CD. But the eye does not turn in the arithmetical ratio of 2:1, for the angle AEB is more than half CAD.

This question of apparent perspective has special applications to cinematography, for we are dealing, not with still objects at set distances, but moving objects. If a long focus lens compresses the appearance of distance an object moving forward across that distance will appear to travel more slowly. So that if it is wished to exaggerate the speed of an approaching train it is as important to use a short focus lens as it is to slow the speed of the camera. There is not, however, at present space to elaborate on the practical applications of the subject.

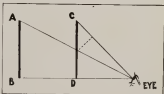
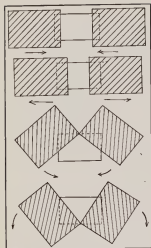


Fig. 3



Bringing ends together as at top wipes scene off. Sliding from center as in second from top illustration and pulling ends outward wipe scene on. These effects can be varied as illustrated in the bottom two sketches.

EVER since the beginning of amateur movies it has been the ambition of every movie maker to do tricks like he sees on the professional screen. It has only been the last year or so that the camera manufacturer responded with what they call professional 16mm cameras and there doesn't seem to be anything that their cameras won't do—if we are to believe the advertisements we read about them. The only thing they fail to mention is that you must know all the fundamentals before you can get the results they make claims for. And when you know all of those and how to apply them you are then in the professional class. And—when you get in this class—you can do all of these tricks with most any camera.

Now that I have made such a broad statement let me show what I mean. About the only requirement to be met as far as the camera is concerned is that it should have a crank or some means of backing the film up about two feet. Any 70 Model Bell and Howell can be thus equipped, the EK Special and some Victor models meet this requirement. Other cameras can be thus equipped by workers who do special work along this line.

The next thing you need is a matte box. You can buy one for a few dollars or you can make one. A pair of

Tricks

scissors, some black paper and cardboard, a fading glass, and a good imagination and you are ready to go to work. A good imagination is the most important part of your equipment. This will be true no matter what kind of a camera you are using.

Now, for some tricks. Fade in and fade out can easily be made with a simple fading glass. Lap dissolves are also made with this. The one scene is faded out, the film is backed up the length of the fade, and the new scene faded in and you have a lap dissolve. However, I prefer to use a neutral density filter, and make fade cuts with the iris in the lens. Fading glasses are all right except they are likely to make a slight jump on the screen when the glass is first put in front of the lens.

Suppose you have a shot you want masked, as through a keyhole, or a telescope. Easy. Cut your mask out of black paper and fasten it on your matte box with Scotch or adhesive tape. Remember that the line of the mask can be made perfectly sharp by getting it a few inches from the lens (of course it must be cut straight). If you want a softer outline bring it closer to the lens. By putting a piece of raw film—without a black backing—in the camera gate you can focus on it and know pretty well just what you are getting. You can thus cut out any kind of a mask you want, including vertical and horizontal masks which are used for making "twins" out of one person, and so on. While we are on that subject it might be just as well to warn you that this is an extremely difficult shot to make so that a line doesn't show. You must depend a great deal in getting the correct background and the correct lighting. When you get all that you can, do it with the most simple paper masks. It is a trick which is seldom used in most amateur productions. When you do use it you must take your time in getting the correct set-up.

Incidentally, it is a slow job to do most any kind of trick work. If you have the imagination and patience you can do most anything. You can't rush and get results. Hollywood spends millions doing trick work, and most of it is spent for time, patience, imagination, and exacting work. Your trick work need not cost you much, but you must expect to learn fundamentals and spend lots of time.

That covers most of the tricks which are claimed for the so-called trick cameras. We have our matte box, so let's see what else we can do. Why not make wipe offs which are so popular. All you need is a piece or two of black cardboard. As you approach the end of the scene draw it in front of the matte box, keeping count of the number of turns the crank makes while the card is going across. Cover the lens and back the film up exactly the

With the Camera— Wipe-offs

by

J. Lloyd Thompson

Laboratory Supervisor, The CALVIN Co.,
Authorized Agfa Ansco Reversal Laboratory

number of turns the crank made while the cord was going across. This will take a little practice and the best way is to learn to time it by counting. After the film has been rewound you are ready to start the next scene, starting the scene with the cord covering the front of the matte box and drawing in the same direction draw it off the matte box with the same number of turns that the crank made when you wiped the first scene off. If you have timed correctly you will have one scene chasing the other off perfectly. The farther the cord board is from the lens the sharper the line and the more accurate the timing needs to be. You can vary your wipe like some of the drawings.

Another good effect is produced by using an Iris Vignetter (can be secured for Bell and Howell Cameras and several others). Make your "fade out" with the vignetter, back up the film, and make the fade in with the vignetter.

If you will watch the professional screen you will probably be able to devise new ones of your own. You can't make all of them because they use an optical printer for theirs, which gives them more of a range but you will be able to duplicate enough of them to make your pictures more interesting. If you feel you must have every trick there is at least one firm in the United States which uses an optical printer to make trick work on 16mm film. This will cost money but it can be had.

Another stunt which you can use. When you come to the end of a scene give the "pan" handle of your tripod a shove while the camera is still moving for 6 or 7 frames. Start the new scene in the usual way. It will look like you have made a quick jump and stopped suddenly and accurately on the new scene.

Don't make the mistake of using too many effects. Try to have a logical reason for the use of every one you use. Don't use the same one too many times. Always be on the lookout for new tricks which you can do, and use your imagination!



Simple wipe off as at top. Push cord across lens; for wipe on pull cord from lens. Next two some effect, but from angle. Five and six from top look complicated on screen. Here's how you do it. Wipe all from top; wind film back, wipe new scene on from side. Bottom sketch is screen wipe off. Many other designs can be used.



When You Shoot Color Remember---

by
William Stull, A.S.C.

WHEN Dr. C. E. K. Mees, A.S.C. announced the new Kodachrome process, he said: "It is as easy to take 16mm color pictures by the Kodachrome process as it is to take 16mm black-and-white pictures, and the percentage of good results obtained is as high." The sponsors of the Dufaycolor process say, in substance, the same thing. In other words, 16mm color has been perfected to the point where the only unpredictable element is the man who operates the camera. As long as he uses the right exposure, the right lighting and chooses the right subjects, the process—either one of them—will give him back good color. Only when he abuses the process—goes beyond the limits set by its makers—need he expect a failure.

The first consideration in any photographic work is correct exposure. This is doubly important in natural-color cinematography, for no color process has ever been devised that had the great latitude of black-and-white. The key

to success in Kodachrome, Dufaycolor, or Dufalcolor is correct exposure.

The best guide to correct exposure is always the use of an accurate, photoelectric exposure-meter. Such a meter is far from being a costly accessory, for though the first cost is a sizeable sum, one need only lose a few badly-exposed rolls of color-film to waste far more than the price of a meter.

The manufacturers of both Kodachrome and Dufaycolor recommend a stop of f 8 in a bright light as the correct base exposure for their films. Dufaycolor users have already found that if you use a Weston Universal meter, with the film-speed indicator set at 16 degrees Scheiner (No. 5 on the meter), the meter will give you perfect exposure-readings. The same should be true of Kodachrome, as well. Using the smaller Weston Cine meter which is calibrated to give a direct reading in f openings for regular Panchromatic film and the average 16mm camera, all that is necessary is to use the next **larger** opening. If, for example, the meter reads f 8, the Kodachrome or Dufaycolorist should get a perfect exposure by opening up to f 6.3.

In following this simple "one stop larger" rule, one thing should be remembered: take one stop more than the exposure for **regular** pan—two stops more than you would use for **Super** pan if that is your accustomed type of film. I am informed that a certain amount of confusion exists on this point, and has caused users of both processes many wholly unnecessary failures.

Certain photographic experts have also suggested that users of the Kodachrome process might do well to consider the chromatic value of their subjects to some extent in view of the three-layer emulsion on this film. Theoretically, at least, they point out, cinematists who use this process in the West where reds and browns predominate in landscapes, would do well to allow slightly more than the indicated one-stop increase, in order to make sure that these red components penetrated the red-sensitive (bottom) emulsion with sufficient strength to give a good exposure. This theory has not, however, been verified, but if you live in a predominantly reddish-brownish neighborhood, and your Kodachrome rolls seem underexposed, this may possibly be the answer. We would like to hear from anyone who has this experience, and tries the remedy outlined.

Another point of the greatest importance is the correct use of the supplementary filters. The "haze-cutting" filter should always be used in long-shots and at the seashore, in order to eliminate the bluish haze which, while not always visible, is nearly always present, and which otherwise would give your picture an unbalanced, bluish cast. The same is true, also, of the bluish filter intended for use with artificial lighting, which serves to correct the reddish tinge otherwise imparted by Mazda or Photoflood illumination.

The matter of lighting has an equally direct bearing on the success of color pictures. Many of us, I realize, are prone to consider lighting as something involved only when we set up the Photofloods and make interiors, but it is just as evident in natural, out-of-door shots. In black-and-white, however, the latitude of the film covers up discrepancies in lighting along with a multitude of other sins—but not so in color. The best lighting for pleasing results in any color process is a flat light. A few years ago, I made an interesting test with Kodachrome shooting the same subject with three different lightings: flat light (with the sun behind me), cross-light (the sun at my

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Motion Picture Hall of Fame, San Diego Fair

Amateur Movie Day at San Diego Fair

HERE is real news for home movie makers who have the yen to get on a motion picture set and actually photograph film players at work!

The Screen Actors Guild and the Camera Club of Hollywood have made it possible for the 16mm and the 8mm enthusiasts to do just that!

The above organizations are sponsors of the Motion Picture Hall of Fame, which will be one of the biggest attractions this summer at the California Pacific International Exposition which opened at San Diego, California, May 29th, and which is scheduled to run until next November. One of the biggest features to be seen in the Hall of Fame is a motion picture company that works daily on a special sound stage. A special cast of Hollywood players has been signed for the entire run of the exposition. These work under the direction of Richard Tucker. A complete technical crew of cameramen, electricians, prop boys, grips and the like are on hand, just as in a studio. The very latest type Mole-Richardson studio lighting equipment furnishes the light. RCA sound recording apparatus records the sound, and Mitchell cameras are used for the photography.

Walter McGrail, who will be remembered for his work in "The World Moves On," "Gemon For Trouble," "The Lawton Drop Kid" and scores of other films, Helen Mann, former Metro-Goldwyn-Mayer contract player, Warren Burke, former Fox featured player, Arnon Aida, whose latest screen appearance is in Warner Brothers' "Page Miss Glory," and Florence Short, stage and screen veteran, comprise the stock company. From time to time some of the biggest stars in Hollywood will appear at the Hall of Fame as "guest stars" in the film making.

And now comes the important news for the home movie makers—EVERY MONDAY DURING THE ENTIRE RUN OF THE EXPOSITION HOME MOVIE MAKERS WILL BE PERMITTED TO SET UP THEIR CAMERAS BESIDE THE PROFESSIONAL CAMERAMEN AND ACTUALLY PHOTOGRAPH THE PLAYERS IN ACTION.

Weekdays will be known as home movie makers' days. The finest lighting experts of the film colony will do the lighting, and Director Tucker will do the directing—all for

the amateurs! And if one of the biggest stars of Hollywood happens to be guest star that day, the amateurs will be permitted to do their stuff just the same.

There will be a lot of other features in the Hall of Fame to record for home showing. For instance—there is a set that was used by Paramount in "The Crusades." There is another from Universal's thriller, "The Bride of Frankenstein," one from RKO's "She." Another from Walter Wanger's "Shanghai," and one from Grace Moore's latest Columbia film, "Love Me Forever."

The most valuable and all-embracing collection of costumes, props and other appurtenances pertaining to picture making ever assembled will be on display. Remember Mary Pickford's famous curls? Well, they are in the Hall of Fame. There is one of Chaplin's famous burlesque boots that he wore in "The Gold Rush." The first camera used in America to make films is there. Hundreds of costumes worn by stars of both the present and the distant past are on display. In short, this is a real motion picture exhibit. The studios have rallied to the support of the Guild and the Camera Club in making this the first real Hollywood motion picture exhibit.

Thousands of visitors to the exposition will want to see how pictures are made while they are in California. But the studios will allow no visitors. Through the Hall of Fame the picture people feel they will delight these people who otherwise would leave California with a feeling of disappointment, for in the Hall of Fame they can see how pictures are made just as well as though they were in a Hollywood studio. And—on Mondays they may step in and make them themselves.

The film building is fitted out like a regular studio. Every bit of equipment used in a studio will be in the Hall of Fame, and is used for the filming of sound pictures. Everything is real. Nothing is tricky. It is a friendly gesture on the part of the film people to bring the public behind the scenes, as it were.

For those amateurs who want to know something about the making of animated cartoons there is an exhibit that is priceless. Walt Disney has an exhibit showing every step in the making of a Mickey Mouse Cartoon. Walter



Fig. 2 and Fig. 3



Fig. 4

NOTHING could have more strongly proved my assertions regarding the pains one must take with straight makeup than the article, "Corrective Makeup as on *Aud to Cinematography*" by Perc Westmore, a man who makes his living applying prosthetic point to screen actors. I trust that Westmore holds no grudge against my boldness in talking for the past three months about a subject concerning which I am admittedly quite green, and that he has found as little as possible to question in what's been said.

Fig. 5



Fig. 7

Dabbling

Personally, I sincerely look forward to more such articles by men whose daily bread is dependent upon the application of screen makeup. My desire is not based on curiosity as to what Hollywood does so much for the glamour involved as for knowledge of the principles such artists have discovered, and I really think most readers of *AMERICAN CINEMATOGRAHER*—the amateurs, at least—feel as I do, for makeup is so much a part of film artmaking and so little is known about the subject.

With this, the last of the series of an amateur's trials with screen makeup, we'll tell of some of the things we tried along the line of character makeup—things which we hope will ground the reader in the simpler phases of character work. Perhaps professional studio procedure will sometime be forthcoming, that we may see how well-known screen characters have been made up—Frankenstein, and his kind, some of Lon Chaney's characters, Edward G. Robinson's Portuguese study, Paul Muni's Mexican role, and so on.

Character makeup usually can use thoughts of whack-



Fig. 4



Fig. 5

in Makeup

"Character Makeup"

by
Wm. J. Grace

ers, wigs, grey hair, wrinkles, and deep scars. Everybody likes to play with whisker makeup (the males I'm referring to now), and it might be a good idea to consider the preparation and application of crepe hair just now.

Crepe hair is not hair (that's one for Ripley)—it is vegetable fibre probably made by squinting liquid vegetable matter of special concoction thru tiny holes in a steel die. A lot of these fibres are then braided together and dyed, and this is crepe hair as the makeup man gets it. To prepare this stuff for use, about a foot of braid is cut off and unbraided, dampened with water, and stretched overnight. A rubber band on each end to hold the mass to a couple of pegs or the legs of a chair is an easy way to stretch the hair and take some of the curl out of it. When dry, the hair can, with care, be combed out, when it is ready for use.

Fig. 6



Crepe hair is stuck onto the skin with a liquid known as "spirit gum"—you'll find it listed in the materials published in the first article of this series. A brush comes with the bottle of gum for convenient application. As the spirit gum dries rather quickly, don't waste too much time applying the crepe hair to the gummed skin area. Neither should the gum be too wet—just at the point of stickiness. It is well, too, to hold the hair pressed to the skin until the gum has dried to a certain extent, a thing which is necessary if the hair is to stick properly.

We applied more hair than was necessary, and after the gum had become dry (it only took about five minutes), the desired shape and fullness of the whiskered area was obtained with a pair of scissors. In the four pictures of the "Scotsman" shown with this article, we used brown crepe hair, with a few black strands mixed into it. In Figs. 6 and 7, the character used black hair. The mustache is his own, the little Van Dyke chin growth was crepe hair.

I have purposely included a very poorly made-up character to show the effects of too violent a treatment of wrinkle accentuation. The Scotsman in Fig. 5 was made up with exaggerated forehead wrinkles and No. 23 grease point on the face—which would have been fair makeup for the stage. Figs. 3 and 4 show the same character with no grease point at all and no makeup wrinkles. The lights caught the natural wrinkles and rough skin texture, adding to the rough-hewn face of the character depicted. By the way—this shows the effectiveness of grease point in smoothing out the skin for picture work.

We felt rather proud of the Scotch character, because the first one we made (which is Fig. 5) was so poor. The

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Fig. 9





Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Building a 16mm Printer

by
Charles E. Keenil

EDITOR'S NOTE: This is one of the entries in the *Tricks and Gadgets Contest*. Others are pending and will be printed from time to time.

MANY amateur cinematographers would like to develop and print their own motion pictures but there are few 16mm printers on the market and these few are rather high priced. The writer solved this problem in a very satisfactory manner by converting a Kodak projector into a printer, the entire cost, including the projector, being less than \$10.00. The photographs show better than words can describe how this was done but a brief description is in order.

Fig. 1 shows the operating side of the printer. Both condenser and projection lenses were removed and a 21 c.p. 6-8 volt auto headlight bulb put in the socket in the lamp house in place of the double filament bulb used for showing pictures. The bulb was wired to the transformer already in the machine thru a radio rheostat so that the printing light could be adjusted to the density of the negative being printed. A frame was built out of a strip of brass, being pivoted on a machine screw in front of the gate and held in adjustment by a machine screw thru a slot near the outer end of the framing lever. The aperture plate already had a slot that fits over a small lug filed on the end of the framing lever as can be seen in Fig. 2, a close-up view of the gate and frame.

The stationary half of the gate was removed from the machine and refastened with machine screws slightly closer to the film claw so as to get positive engagement of the two films, especially at a splice in the negative. While it was off, two small strips of sheet brass were soldered across

the depressed center portion of the gate above and below the aperture so as to completely surround the aperture. This, in combination with the aperture plate about to be described, was necessary to secure good contact between the negative and the positive as the gate when used as a projector only held the film at the edges.

The aperture plate or movable half of the gate was completely changed as shown in Fig. 3, the aperture being filed out and a new aperture made of spring bronze, fastened to the back of the main plate on one and only so that it would bear on the film with only the light tension needed to maintain good contact between the two films. The aperture plate spring continues to supply the main tension on the edges of the film as it did in the projector, the spring bronze aperture tension being so light that any particle of dust on the negative will lift it and not cut into the film and cause a bad negative scratch. Needless to say, all parts of the gate coming in contact with the film received a finish polish with crocus cloth. The nozzle seen in Figs. 1 and 2 is connected to a blower which keeps dust from accumulating in the aperture and spoiling the print.

Fig. 4 shows the opposite side of the printer with the motor drive, blower, lamp rheostat and control switches as well as the positive film spool spindle. Fig. 5 is a closer view, showing in more detail the worm gear drive for reducing the motor speed. This 30 to 1 reduction allows the universal motor to run practically at its "no load" speed and therefore its speed is quite constant. This also gives a printer speed of about 8 frames a second which is slow enough that the operator can change the printing light with the scene changes by watching the picture in the printer aperture.

One of the switches controls the printing light and the blower, the other switch controls the printer drive motor. Since the particular blower used by the writer had a 60 volt motor, it was necessary to run it thru the two resistance tubes for 110 volt operation. This blower came off an old Victor disc sound projector but a hair dryer with the heating coils removed would do as well or better.

The take-up reel spindle of the Kodak was mounted on the upper front of the machine with a strip of metal to carry the spool of positive stock, the regular feed reel spindle serving to hold the spool of negative. No take-up is used on the printer, the base of the projector as well as the board on which it is mounted being cut away to allow both films to run into a large corrugated paper box from which they are re-wound onto spools.

With a printer like this and a small drum and troughs for development, an amateur is equipped to turn out just as nice work as he can get from the commercial laboratory. Of course, he will have to do some experimenting to attain this but that only adds to the pleasure of a real amateur.

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IMPORTANT

At present Kodachrome is being processed as rapidly as possible at Rochester, N. Y., only. As soon as practicable other processing stations will be equipped to handle Kodachrome. Supplied at present only in 100-foot lengths, at price, including processing, is \$9. Eastman Kodak Company, Rochester, N. Y.

These Two Ciné-Kodaks Make Kodachrome at Its Best

At its former price of \$132.50 Ciné-Kodak K K f.1.9 (left, below) was the most widely used 16 mm. camera. Now you can buy it for only \$112.50—\$125 with case.

Ciné-Kodak Special is the most versatile of all 16 mm. cameras. No adequate description of it can be given here. See the "Special" at your dealer's or write for the free booklet, "Presenting Ciné-Kodak Special."



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Continuity for Two People

by
W. Bernard Roberts

A YOUNG couple can produce this with no outside help. The husband can double for himself and the tramp, and in the scenes in which both he and his wife appear the camera can be locked. In case it is desired to star the cat, the script can be revised so that only the hands and feet of the human actors appear.

A Cat-astrophe CAST

The Bride
The Husband
The Tramp
The Cat
The Canary

Scene 1 Closeup Cake being iced Truck or cut to
Scene 2 Closeup Bride icing cake Bird cage above
to R. She talks to bird as she works
Scene 3 Med shot She finishes cake and places it
on table, then goes to bird cage

Scene 4 Closeup Feeding canary Cage door is open
Scene 5 Closeup Cat on floor looking up
Scene 6 Semi-closeup Continuation of Scene 4
Bride sees cat
Scene 7 Med shot Same as Scene 6 She puts cat
out of door
Scene 8 Closeup Telephone
Scene 9 Bride feeding canary as in Scene 6 She
hears 'phone and exits
Scene 10 Closeup Bride at telephone She settles
herself for a lengthy conversation
Scene 11 Closeup Bird in cage, door open
Scene 12 Closeup Inside of open window Cat comes
over ledge, sits on ledge a few seconds, then jumps down
into room
Scene 13 Closeup Back to Scene 10, Bride finishes
conversation, hangs up, sits thoughtfully for a few seconds
then remembers bird, and exits
Scene 14 Long shot Same room as Scene 3 Bride
comes from behind camera and goes toward cage About
half-way to cage she stops in dismay
Scene 15 Closeup Empty cage
Scene 16 Med closeup Reverse of Scene 14, with
part of cage in foreground She starts to look around, and
ends by looking down
Scene 17 Closeup Cat washing
Scene 18 Med shot from same angle as Scene 16
Bride picks cat up by back of neck
Scene 19 Closeup Same She is furious—talking
and shaking finger at cat
Scene 20 Long shot She comes cat out Quick fade
Scene 21 Med shot Car in drive in foreground
Bride gets into car with sack which evidently contains cat
She starts car and drives out of picture
Scene 22 Long shot Country road Bride approaches
in car, comes to a stop near camera, and gets out with sack
Scene 23 Med shot Part of car in foreground
Bride goes thru farm gate and down path
Scene 24 Closeup Camp fire with coffee can and
hot dogs on stick Truck or cut to—
Scene 25 Med shot Same showing tramp by stream
under bridge He has a newspaper or detective magazine
propped up, and he reads as he cooks
Scene 26 Closeup "Murder" headline or title of
story
Scene 27 Long shot Bride as she walks resolutely to
bridge and up to rail
Scene 28 Semi-closeup From below as she looks
over
Scene 29 Semi-closeup Tramp reading, he gets ex-
cited about the "murder" story
Scene 30 Semi-closeup Back to Scene 26 She shuts
her eyes and drops sack (Note: Don't drown the cat, we'll
need him later!)
Scene 31 Closeup Sack hitting water and sinking
Scene 32 Closeup Tramp, as he sees and hears
splash His eyes bulge He speaks
TITLE "A Murder"
Scene 33 Closeup Same as Scene 31 Circles wid-
ening in water

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WITH THE AMATEUR CLUBS

Club Bulletin

● Two very interesting bulletins reach us, one from the Metropolitan Motion Picture Club of New York and the other from the Chicago Cinema Club. They are interesting, meaty and undoubtedly are eagerly read by their membership. Ainette C. Decker is editor of the Metropolitan club paper called "The Closeup" and S. F. Warner edits "News Flashes," the Chicago Cinema Club paper. Both of these people deserve a lot of credit for the great amount of work they do in getting out these papers. But more about these clubs later.

Clubs Show Prize Pictures

● Many clubs are arranging to show the American Cinematographer 1934 Prize Winning Amateur Pictures. This year "New Horizon," the first prize winner, and "Tender Friendship," the winner for photography, which is expected from the laboratory very soon. In addition, last year's Best winner, "Cattle Country," is also available to clubs.

The 16mm subjects duped for club showing from the 1934 prize winners include only two subjects, "Water," made by M. Demost of Hackensack, N. J., and "Mischief," made by Von Dee Sackler of Hollywood. The latter won in the Home Movie Class, while the former took the prize for Educational pictures.

Some clubs are splitting the pictures into two showings, one for the 8mm pictures, and the other showing for the 16mm pictures. However, many wish to put them over in one meeting and also save the double shipping expense. The films are available to any club in the country. It is merely necessary that the club pay all transportation expenses.

Gives Prize Money to Charity

● From newspaper clippings sent us from Sydney, Australia, we glean the fact that J. Sherlock who won the \$50.00 prize for Scenic with his picture, "The Brook," gave this money to an unfortunate little child who had his leg bitten off by a shark.

It seems the little tot was in bathing with its pals, but remained in the water a little longer than the other children.

When it started floundering and yelling the first thought of those on shore was it was merely playing. Too late it was realized that a shark had attacked the youngster. Adults immediately went to the rescue. Naturally the case elicited a great deal of sympathy from everyone because of the age of the youngster and because the parents were not too well fixed with this world's goods.

Sherlock's gesture deserves not only the praise of his townsmen but the praise of every cinematographer.

Los Angeles Club Contests

● This year as in past years the Los Angeles Cine Club is devoting every other meeting to contests. These contests have proved very popular with this club. They have been divided into classifications so that the beginner does not have to compete with the advanced amateur. Also those winning prizes in one contest cannot compete again that year.

Metropolitan Club

● The subjects taken up by the club is always interesting to another club, it helps the program committee arrange more interesting meetings. Undoubtedly a recent meeting held by the Metropolitan club will serve as a suggestion for other clubs.

One part of the program was given over to the discussion of titles by one of its members. The making of titles with positive film and reversal. Charles Coles was the spokesman on this subject. His picture was one which was given a medal in 1933 by this publication and last year he was also among the more conspicuous entrants.

Another subject discussed by George A. Ward was the Plot Film. He divided these into three classes, the one made from a prepared scenario, the film which is based on a flexible scenario, and the reel which is made by assembling odd shots and adding a theme, which welds the individual pictures into a unit.

Los Angeles 8mm Club Studies Lighting

● At the last meeting of the 8mm club of Los Angeles considerable time was given over to the study of indoor light-

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WHEELS OF INDUSTRY

Bell & Howell 8mm Camera

• The Bell & Howell Company has announced that it will have an 8mm motion picture camera in production within a few weeks. Samples are now being distributed among dealers. More than three years of engineering development, Bell & Howell report, have preceded this announcement.

The new camera is known as the Filma Straight Eight. It uses a new film, Bell & Howell Filmapan, a fine-grain reversible panchromatic film which is pre-split and packed for daylight loading on spools containing 30 feet of usable film plus 2 feet for loading and unloading. This film costs only \$1.45 per spool, and so provides an attractively low operating cost for the new camera.

Small size, light weight, provisions for extremely simple loading and operating, and the scientific design and Bell & Howell precision construction which make for fine picture results and a long life of dependable service are other advantages emphasized in the manufacturer's endorsement of the new 8mm camera. The weight is only 24 ounces, the size is 1 1/2 by 3 by 5 inches.

The camera is easily and quickly loaded. There are no sprockets to thread, no film loops to form. The film spools are placed on the spindles—they cannot be placed there other than correctly—and the camera is loaded! When the permanently-attached hinged door of the camera is opened, the film gate springs open, ready to receive the film. The gate is closed by the shutting of the door. The footage dot is automatically reset to 0 when 30 feet of film have been exposed, and, as it is insensitive when the camera door is open, need never be reset by hand.

A 12 1/2mm F2.5 anastigmat lens in universal focus mount is standard equipment. Extra lenses to be available later include 1-inch F2.7, 1 1/2-inch F4.5, and the same three focal lengths in larger apertures. Filma 70 and 75 Camera lenses will later be adaptable to the 8mm camera.

Lens interchangeability is made quick and easy by a spring lock. One merely presses two knobs together to release or replace the lens.

There are four speeds—8, 16, 24, and 32 frames per second.

Winding is easy and silent by means of a permanently-attached, non-rotating key that folds flat against the side of the camera. The spring motor is automatically stopped well before exhaustion of its power, to prevent loss of speed at the end of the run. There is also means to prevent the end of the film from leaving the gate after the film is all exposed. This insures the film's remaining tightly wound on the spool, so that it will not be fogged when the camera door is opened for unloading.

The Filma 8mm Camera is finished in rich brown crinkle-baked enamel with black and plated fittings. It has a sturdy die-cast aluminum-alloy housing.

Filmapan film for this new 8mm camera is processed, without additional charge, in New York, Chicago, Kansas City, and Los Angeles, and in stations in most countries outside the United States.

16mm Printer

• A 16mm printer of the continuous design for both picture and sound printing has been designed by Armand Fried of Hollywood. The printer has an automatic light change and other features necessary for a professional printer.

It is motor driven and can be used merely for sound if desired or only for pictures, or for both.



Eastman Reduces Price

• The list price of the Cine-Kodak, Model K, formerly selling at \$152.50, has been reduced to \$112.50 without a carrying case and \$125.00 with the case. This \$27.50 price reduction, according to advice from the Eastman Kodak Company, has been made possible as the result of increased sales, with its attendant manufacturing economies.

Model K, with the F3.5 lens will no longer be supplied, as the new price of the \$119 is practically the same as the F3.5 model.

Sound Booklet

• Berendt-Maurer Corp. has prepared an interesting outline of "Sixteen Millimeter Sound on Film Recording." This folder is available to all who might be interested by merely writing to the corporation in New York City.

There is considerable basic information contained in this work that would undoubtedly prove of interest to the Technical amateur. Many simple and graphic sketches are employed to explain the text and to show more clearly the method and process of reproducing and creating sound.

Change of Name

• Photographic Specialties Inc. is the new name for Photolites, Inc., of New York City, a company which has, in the last year, established a reputation in the field of lighting equipment. They are the manufacturers of the Photo-Flood Spot, a unique illuminating device which may be focused to any desired radius or intensity. The "Spot" feature of this device may be used interchangeably with a focusing Reflector.

The decision to assume this name was motivated by plans which contemplate the manufacture of additional photographic specialties of a type that the name Photolites would not suggest.

New Distance Meter

• Bee Bee Distance Meters, a new American-made unit, has just been placed upon the market by Barleigh Brooks.

Bee Bee Distance Meters are compact, 3 1/2" long and 1 3/16" square. They have a highly polished heavy nickel finish plating over brass. A screw that fits all standard tripod mounts is built in.

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The Distance Meter may be attached di-
 rectly to the camera by means of an
 adapter clip, sold for 25c.

It is said these meters have a simple
 interior construction so that there is lit-
 tle wear, even from hard and steady use.
 The eye cup is large, and affords a
 full, clear image for aligning. The
 focusing dial is a well spaced, clockwise
 moving knob, set on the top of the meter
 with graduations for apart, to insure ac-
 curacy. It is claimed the meter is so
 critical that readings plus or minus 1" are
 obtained after very little practice.

Feature Releases

• H. B. Kay of Brooklyn, N. Y., an-
 nounces a new series of sub-standard
 sound-on-film subjects for rent and sale.
 Among the latest releases are included
 "Defenders of the Law" and "Sea Devils."

Reduced Prices

• Fotoshop, Inc., has reduced the price
 of their regular semi-ortho film to \$2.19
 per 100 feet, their super speed pancho-
 matic film will continue to retail at
 \$3.75 per 100 feet.

Fotoshop operates its own laboratory
 —pack and process all their own film.
 Their laboratory specializes in duplicat-
 ing of films.

Continuity for Two People

Continued from Page 255

Scene 34 Long shot Some as Scene
 23 Bride running thru gate and toward
 car. She gets in and drives away.

Scene 35 Med shot Tromp fishing
 for sock with long stick. He finally gets
 it. Fade out as he pulls it from water.

Scene 36 Med shot Fade in, in-
 terior of hallway. Husband comes in,
 takes off hat and coat, and calls as he
 hangs them up.

Scene 37 Med shot Husband
 coming into some room as Scene 14
 looks around, something unusual at-
 tracts his attention.

Scene 38 Long shot, exterior. Re-
 verse of Scene 21. Bride drives in, gets
 out of car. Cut as she enters house.

Scene 39 Med shot Some as Scene
 37. Bride comes in door looking very
 dispondent. Leaves door open. Sees hus-
 band, pauses as he comes toward her.

Scene 40 Closeup Some. He takes
 her in his arms. She sobs.

TITLE "—and then I drowned him!"

Scene 41 Closeup Reverse of Scene
 40, facing husband. He looks amused
 and laughs. She looks up. He nods
 toward—

Scene 42 Closeup Canary sitting
 on fresh cake eating. Pan down to show
 wet cat on floor washing himself. Iris out.
 The End

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2. For CONTACT PRINTING of 16mm film on 16mm or 35mm raw stock.

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For the optical reduction of the sound track from 35mm to 16mm with pre-set rheostat.

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WHEN YOU SHOOT COLOR...REMEMBER

Continued from Page 262

side), and back-light (the sun behind my subject, and a good sunshade as my lens). The fairly lit that was by far the most pleasing, the definition was better, and the coloring more pronounced. Both Kodachrome and Dufaycolor are ruled by the same law, flat, even lighting is infinitely preferable for color-filming.

Back-lighting, however, is at times very effective in closeups, and the increased speed of the new processes makes such lightings easier to shoot. For instance, a close shot of a pretty girl, made under the shadow of a tree, with a few rays of sunshine striking her hair from above and behind, makes an excellent color-shot. In that case, of course, the correct exposure would be whatever was correct for the shaded area, the few back-lit highlights could take care of themselves.

Similarly, color-filmers will be wise to do their shooting in the middle of the morning and the middle of the afternoon, avoiding the straight, harsh top-light of mid-day, which yields unattractive, lifeless, shortened shadows.

The speed of both of the new processes makes it technically possible to film directly-exposed color scenes even on cloudy days, but there is a considerable difference between the technical possibility of an adequate exposure and the realization of a desirable color-shot. On grey days, the color is still there, but it is noticeably greyed out by the greyed light. Your color scene will reproduce this condition perfectly, but if you want real color pictures, you should shoot your scenes when the sunlight strengthens the colors, not when the clouds wash them out.

The third important factor in making good color pictures is choosing subjects that lend themselves well to color. In general, if visual inspection of the scene shows that color is a really important factor, shoot it in color, if not, black-and-white is just as good—and a lot cheaper. In general, you will get the most pleasing color scenes in the closer shots, though Kodachrome performs very acceptably in long-shots where, as in Zion Canyon, the Grand Canyon, etc., spectacular coloration is half the story. Dufaycolor, so its users tell me, is definitely at its best in close shots, for in longer shots the underlying color-screen (material) and the finer details of the picture come into some conflict.

A number of interesting tricks are possible with these new processes: for example, using the Kodachrome artificial-light filter, which is a bluish, for an occasional exterior closeup should give a very interesting suggestion of moonlight, while firelight scenes could easily be made indoors by omitting the same

filter, and placing a photoflood unit in the fireplace.

Clearly, 1955 is going to go down in color history as the Color Year.

DABBLING IN MAKEUP

Continued from Page 265

beating brows (more crepe hair), the unkempt fuzziness of the side-burns and chin whiskers, the ruggedness of the skin of the face all seem to transform the actor entirely into his role. The Van Dyke of Figs. 6 and 7 was the only thing needed to change his appearance, so, while we thought the result fairly good, the ease with which the effect was achieved perhaps detracted from our appreciation—it was too easy.

One of the girls (Figs. 8 and 9) decided she would determine the effect of grease paint several shades darker than her normal shade, and used No. 28, with the results giving the impression of an unkempt hag. The darkened skin idea was perhaps brought to mind after seeing Paul Muni in "Bordertown," in which he had the worst olive complexion of a Mexican. At any rate, it will give you an idea of the possibilities of makeup as regards skin tones of a race of dark-skinned people.

The different character types which you can create are almost limitless. The little tricks of makeup which change the appearance of a person into entirely different character are manifold. Lighting has a lot to do with the creation of moods, not only of the general scene, but of the actors themselves. And when the many combinations of lighting are utilized with the still more numerous tricks of makeup, the result can be practically anything you want. However, only thru actual experience will you learn the best working combinations, and since the pleasure of experimenting with scene makeup is so engrossing, the task of teaching one's self at least the rudiments of the art cannot be even regarded as a task. So, go to it, and some of these days, out of the ranks of today's amateurs, may rise makeup artists even superior in artistry to the greatest paint wielders of today. Here's luck and lots of fun!

♦ ♦ ♦

And now, as Ben Benne would put it, "It's time to call a halt," and at the peril of amnesia becoming reminiscence, may I recall the many helpful letters readers have written me in the past sixteen months I've been writing for the Amateur section of AMERICAN CINEMATOGRAPHER. Thanks a lot—you've been of great aid in suggesting

subject matter upon which to write, and on inspiration to keep it.

I've enjoyed tremendously trying to talk about cine matters in the layman's language, and if the article have been of even the slightest inspiration for better cinematography, I feel repaid many

times over. Other work is becoming pressing, however, and it will be necessary, for some time at least, to step out of the picture for some months. The best of luck and may your amateur efforts some day overshadow even professional perfection!



Tripped base as detailed on this page, showing how the bass is held in relation to each other with a street cord

AN INTERMITTENT FILM VIEWER

THE device may be made by cutting off the reel holders and lamp house from a toy projector and mounting it with the optical axis placed vertically over a small lamp. The reel holders are placed at the ends of the board, the take-up reel being connected to the hand crank shaft by a long spring belt. The film thus passes horizontally from the supply reel thru the gate where it may be inspected by looking down thru the projector lens. After passing thru the gate, the film goes over a hold-back sprocket and on to the take-up reel in the usual manner.

Obviously, the better the design of the projector used, the smoother the operation of the viewer. The Keystone Model E-42, which has both feed and hold-back sprockets would be most satisfactory but the cost (\$10.50) is more than twice that of the Model E-28 (\$3.50) shown in the photograph. This latter model is satisfactory with small supply reels. The take-up may, of course,

be a 400-foot reel if desired. Short lengths of film, with which the viewer is most used, present no problem since they can be run out of a bag and onto the take-up reel.

Any difficulty in keeping the film on the hold-back sprocket may be surmounted by running a length of adhesive tape lathery side down, of course! under the sprocket from one guide pin to the other. This tape may be covered with velvet if desired, but will cause no damage to the film in any case since the emulsion-side of the film is toward the sprocket. That is, the film runs thru the gate, emulsion away from the lens thus making titles readable.

There is also ample room on the board shown for inserting two of the usual rewinds (not shown in the photograph) which would be used whenever it is not desired to view the film and for reversing the winding of the reels after inspection, that is, from "emulsion in" to "emulsion out."

Amateur Movie Day at San Diego Fair

Continued from Page 263

Lente has another similar exhibit. On display are the gadgets used to create the sound effects for the cartoons. Experienced men are on hand to answer all questions and explain the workings of everything.

Members of Amateur Movie Clubs who have long been puzzled in the matter of proper use of makeup will find a special exhibit by Max Factor in the building. Specially trained experts from this most famous makeup studio in the world are on hand to advise and demonstrate. They even make up a visitor

who might want to see how she will look with a certain type of makeup. Max Factor is the man who developed the makeup used by the stars. The benefit of his years of experience making up the Pickfords, Harlows, Garbos and other famous stars is given free to the amateur movie clubs.

It would take a book to tell about everything in the building, so we have just touched the highlights. In closing, here's some advice—don't forget to take your movie camera along when you go to the exposition.

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If your camera is running 4 times normal how many feet of film will you expose in 55 seconds?

If F 2.3 is the correct lens stop for 24 frames per second, what should the stop be for 45 frames per second?

If F 11.3 would be the right stop with the shutter set at 170 degrees, what would be the lens aperturing with the shutter at 40 degrees?

When is an 88 filter used and for what purpose?

What is the filter factor of a 5MS filter for Eastman Film? For Dupont Film? For Agfa Film?

What is the fastest lens for 35mm cameras and who makes it?

How far from the camera would your subject have to be for a head close-up with a 100mm lens?

With a shooting light of F 6.3 and the camera shutter at 170 degrees, what would be the F value of the Akaley Camera with 280-degree shutter?

With a developing time of 8 minutes at 65 degrees, what would be the developing time with a temperature of 55 degrees?

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